1. Let the association keep up all its sections, possibly adding to the number, freely cooperating with special societies, each section showing a willingness to unite in preparing a program with any one or more special societies having a like object.

2. Years ago at meetings of the association, the late W. A. Rogers in Boston and E. S. Morse in Detroit, strenuously advocated the presentation of no papers that did not present the results of original work. Professor Cope often took the same ground, not infrequently helping to reject papers because of their popular nature.

I have recently thought it desirable to have a number of speakers selected by officers of the sections, perhaps with the approval of the council, to present some topic or series of topics in a popular way to attract 'outsiders.' It would hardly be safe to permit any volunteers to present papers on a popular topic.

3. Education, economics, but not philology.

4. Once a year, preferably in winter, till this date has had a fair trial.

5. Meet most of the time in populous regions from Washington to Boston, Detroit, Chicago, where many people are most sure to attend.

6. The association through SCIENCE is now performing a great work. W. J. BEAL.

ERRORS IN NOMENCLATURE.

TO THE EDITOR OF SCIENCE: In the *American Naturalist* for February is a paper by Miss E. G. Mitchell purporting to date from Cornell University and expressing acknowledgments to Instructor H. D. Reed and myself. Besides some typographic errors it contains so many incorrect generic and specific names that, in justice to the university and ourselves, Dr. Reed and I feel obliged to disclaim responsibility for them. Two years ago some dissections and observations were made by Miss Mitchell in this laboratory, and she was probably encouraged to complete and publish them. But at that time our concern was with the subject-matter, and we did not undertake to verify the names of the fishes examined. Neither the manuscript nor a proof has been submitted to us recently, as would have been required before assenting to publication as if from the department. Others, like ourselves, probably query why the paper was not passed upon by the ichthyological editor of the *Naturalist*. A list of corrections has been sent to Miss Mitchell, in Louisiana, with the expectation that she will request their immediate publication. BURT G. WILDER.

ITHACA, N. Y.
May 2, 1904.

SPECIAL ARTICLES.

A REFERENCE TO THE ORIGIN OF SPECIES IN AN EARLY LETTER (1796) SIGNED BY BOTH LAMARCK AND GEOFFROY.

AMONG the papers of the elder Peale which were recently dispersed in Philadelphia was a four-page letter in folio, on official paper, signed by Lamarck as director of the Museum of Natural History and by Geoffroy as 'professor and secretary.' The writing is in the hand of Geoffroy, and it is, accordingly, fair to assume the composition and the doing into English were also his. The ideas, however, are subscribed to by Lamarck 'for director' in his characteristic hand.

One might add that manuscripts connected with Lamarck are rare; in fact, few are known which touch upon variation in species, and the present letter may, therefore, be quoted literatim, for what it contains of an extra philosophical nature will be at least of human interest as indicating the type of correspondence which such a man as Peale would have read to his colleagues of the Academy of Natural Sciences.

at Paris, 30 Juny 1796

LIBERTÉ, ÉGALITÉ, FRATERNITE.
MUSÉUM NATIONAL
D'HISTOIRE NATURELLE.

THE PROFESSORS DIRECTORS OF THE NATIONAL MUSEUM OF NATURAL HISTORY TO MR. PEALES, AT PHILADELPHIA.

Sir,

Mr. Beauvois has transmitted us the letter wich you directed to him, by wich you propose yoursel to enter into a correspondance with the Museum of Natural History of the french Nation. We are pleased to seize an opportunity wich can afford us some communication with a Naturalist of your merit. Every thing you announce is

agreable and will be equally useful on both sides. We shall send you with pleasure and care a collection of the European productions in exchange for the Americans, which your love for the science of Nature impels you to collect, be so kind as to correspond with us on this subject. The way by wich your letters and your sendings can reach us is simple. Direct your instructions to the Minister of the Marine of the french republique; marking on the direction that they are destined for the Museum of Natural History.

Give us leave, Sir, to call your attention on the subjects wich we desire to receive first. Those enormous bones wich are found in great quantity on the borders of the Ohio the exact knowledge of those objects is more important towards the theory of the earth, than is generally thought of. We ardently wish some couples of alive animals *à bourses* (Marsupialia, opossums). Their generation is too hypothetical. The french Naturalists wish to acquire at last a solid opinion on this important question, wich can throw a light on the generation in general. The scalpel may perhaps lead us to discover particular organs, wich have not yet been described, wich might afford us some new views.

We also desire some species of quadrupeds of your climate. they have some conformity with those of the ancient continent. they are even been confounded with one another. Neverthelss we think they differ as to their species; and to be assured of it positively we should be pleased to receive indistinctly* all those you could have gathered. We are about to proove that no species of the ancient continent exists in the new et vice versâ and that great proof founded in the contrary opinion by wich both continents were formerly united towards the north would fall as groundless.

Therefore it would be highly important to us to know the Bears of the Illinois the stags and Roe-bucks of Canada the stairs,† the mountain Rats (Marmottes) the weasels (Belettes) the Bats (Chauvre souris) the moles (taupes) the martes (les martes) the beavers (les Castors ou bievres) etc We should be grateful if you would join to these the animals of our own country wich have transmitted in our ships to your country, as the rats, the mouses the *sorex araneus* (mus araigne). It is incredible what variety these animals offer to the attentive eye. How many analogous forms are taken for Species. It would be interesting to know what degeneration their transplantation has produced on their economy. They would lead us to a more exact knowledge on the nature of the Species and even of the Species in general. Spiritous liquors are the best means of preserving of all those animals. by this mean we will acquire with respect to foreign animals all the most striking facts wich they offer to the observator. We know better their external form, their skeletton, their organes of nutrition, of respiration, of circulation, of generation; and to finish animals always arive in a good condition. It is the manner in wich we shall transmit to you all our animals, wether quadrupeds, or birds or insects if these animals are of a smale size unless you prefer the ordinary means.

As to great animals whose preservation in spirituous liquor would be too dispendious,* we would be satisfied with the skins but for gods sake leave to the skin the scull and bones of the feet. We would be equally grateful if you would add to your envoys a skeleton separated from the great animals, whose form is different from that of those species well known in Europe, and to use the language of Naturalists a skeletton of each gender. We shall pay the same regard to you We shall not fail of sending you preparations as we wish them form you, convinced that it is to the progress of Natural History.

We already possess a sufficient quantity of smal birds from north America, however the list of those wanting in consulting the work of Catesby is considerable. you will find it with this letter. By this mean you will be informed that all the birds marked by Catesby wich are not inscribed on the list form a part of our precious collection and are less necessary than the others.

We wished, Sir, that our correspondance should not be confined to the exchanges of European productions with American only, be to kind as to make it litterary; send us the catalogue of all the works appearing on Natural History in the united States. Let us know the history of that science by your know corporations of learned men instituted to its progress. Depend on the reciprocation on our part. Inquire, Sir, after all the particulas; do not fear to swell your letter. I shall give it ful credit as much as it lays in my power. When the means shall be deficient, I shall write it to you with frankness.

Accept, Sir, the assurance of our estim and obedience.

LAMARCK
for director.

GEOFFROY
Professor and Secretary of the Administration of the Museum of Natural History.

* ? indiscriminately.

† ? Bison.

* ? Expensive.

The obvious interest of the foregoing letter is in its testimony that the writers were keenly alert as to transformism at this early date (1796), and that they had even marked out an important line of inquiry—comparison of old world species with new world species, and a study of the variation of those forms which had been introduced and allowed to run wild for a considerable period, possibly a hundred years. In other words, they are seeking 'a more exact knowledge on the nature of the species and even of the species in general.' And they clearly assume the importance of evolution, when they aim to measure the amount of change (degeneration) which transplantation has caused in the economy of mammals. Especially conspicuous is the importance which is apparently attributed to the Buffonian factor: 'we also desire some species of quadrupeds from your *climates*.' "It is incredible what variety these animals offer to the attentive eye." There is even a crude notion of parallelism in the remark that 'many analogous forms are taken for species.' Noteworthy also is their interest in the paleontological evidence, for the bones from salt licks are expected to yield important evidence as to 'the theory of the earth.' And we may conclude that Lamarck had evidently his Hydrogéologie (1802) as well as transformism in mind in his search for evidences as to distinctness of species widely separated geographically when he theorizes as to the ancient outlines of continents, and maintains that no species of the ancient continent exist in the new.

The present paper, moreover, narrows the probability that Lamarck borrowed his transformism from Doctor Darwin. For Lamarck is not known to have had evolutional tendencies before about 1799, and it has accordingly been stated that the Zoonomia (1794) was the slowly working cause of his conversion. By the present evidence, moreover, he was enterprisingly investigating the nature and variability of species, as early as the spring of 1796, *i. e.*, less than two years after the publication of Darwin's work, and possibly before it was circulated abroad. Indeed, even in England there is little reference to it before 1798, and Paley's attack upon Darwinism did not appear till 1802. Of certain interest is the literary partnership of Lamarck and Geoffroy in philosophical matters at this early date. Geoffroy was then but twenty-four years of age, and this is, as far as I am aware, the earliest record of his interest in the origin of species. It antedates by several years his studies on the mummied fauna of Egypt; and we may naturally query whether he may not already have had in mind to test the possibilities of variation by comparison of the early and late 'productions' of the valley of the Nile before Napoleon had laid his plans for an actual invasion?

Bashford Dean.
Columbia University.

The Nature of the Pelée Tower.

The recent publication of a note by Professor Lacroix (*Comptes Rendus,* March 20, 1904) on the production of quartziferous rocks in the course of the actual eruption of Mont Pelée, and the stated conclusion arrived at by the distinguished French geologist that rocks of this character (and by analogy, other igneous rocks of more clearly marked figure, such as microgranulite and even true granite) may be formed superficially and do not require in their construction deep-seated pressure—conditions which have long since been recognized, even if the processes of formation had not before been observed—afford, perhaps, a sufficient reason for me to state my belief that the giant obelisk of rock, which at the time of its greatest development, the close of May of last year, towered out of the crateral opening of the volcano to a height of nearly 1,000 feet (and, had there been no summit, breakages would probably have risen a full thousand feet higher), had *not* the structure that was assigned to it by Lacroix—namely, that it represented an exceedingly viscous acidic lava which solidified immediately on its extrusion and rose vertically under volcanic stress instead of flowing off in the manner of the normal lava-streams. This seemingly simple explanation of one of the most remarkable structural forms of the earth's surface has apparently been accepted by most geologists, and my own earlier studies led me to the same conclusion. A later critical examina-